

Application No. 10/035636
Amendment dated March 8, 2006
Reply to Office Action of December 13, 2005

Docket No.: 013208.0121PTUS

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for generating an encryption key for use with a host device having a host identification stored therein, for encryption a file comprising a plurality of blocks of plaintext data in a manner that said encrypted file can only be decrypted by said host device, the method comprising:

retrieving the host identification from the host device for use as a private portion of an encryption key;

generating at least one content variable that uniquely identifies a corresponding block of said file as a public portion of said encryption key;

combining the host identification and the at least one content variable to produce ~~two or more combinations~~, wherein the method used to combine the host identification and the at least one content variable repeatedly produces the same two or more combinations; and

~~coalescing the two or more combinations to produce the encryption key, wherein the method of coalescing the two or more combinations repeatedly produces the same encryption key~~;

encrypting a block of plaintext data using the encryption key to produce a block of ciphertext;

appending only the at least one content variable to the block of ciphertext; and

storing the block of ciphertext and the appended one or more content variable within a storage device.

2. (Currently amended) The encryption key generation method of claim 1 wherein ~~coalescing the two combinations~~ said step of combining comprises:

~~concatenating the two or more combinations~~ using a predetermined method, wherein ~~concatenating the two or more combinations~~ combining the host identification and the at least one content variable repeatedly produces the same encryption key.

3. (Currently amended) The encryption key generation method of claim 1, wherein the host device includes a secure clock, the method further comprising:

obtaining a time variable from the secure clock within the host device;

combining the host identification, the at least one content variable and the time variable to produce ~~a plurality of different combinations~~, wherein the method used to combine the host identification, the at least one content variable and the time variable repeatedly produces the same ~~plurality of different combinations~~; and

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~~coalescing the plurality of different combinations to produce the encryption key,
wherein the method of coalescing the plurality of different combinations repeatedly produces the
same encryption key.~~

4. (Currently amended) A method for generating an encryption key to encrypt a block of plaintext for use with a host device having a secure clock and a host identification assigned thereto and saved therein, the method comprising:

retrieving the host identification from the host device for use as a private portion of an encryption key;

generating a content identification, wherein the content identification corresponds to the block of plaintext as a public portion of said encryption key;

obtaining a time variable from the secure clock within the host device;

combining the host identification, the content identification and the time variable to produce ~~at least six combinations thereof; and~~

~~coalescing the at least six combinations to generate the encryption key, wherein the method of coalescing the at least six combinations repeatedly produces the same encryption key.~~

5. (Currently amended) A method for encrypting a block of plaintext for transmission over an unsecured interface to a storage device, for use with a host device having a host identification assigned thereto and stored therein, the method comprising:

retrieving the host identification from the host device for use as a private portion of an encryption key;

generating at least one content variable that uniquely identifies a corresponding block of said file as a public portion of said encryption key;

combining the host identification and the at least one content variable to produce ~~two or more combinations, wherein the method used to combine the host identification and the at least one content variable repeatedly produces the same two or more combinations;~~

~~coalescing the two or more combinations to produce a first an encryption key, wherein the method of coalescing the two or more combinations repeatedly produces the same first encryption key;~~

encrypting the block of plaintext using the first encryption key to produce a block of ciphertext;

appending the at least one content variable to the block of ciphertext;

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transmitting the block of ciphertext and the appended at least one content variable over the unsecured interface to the storage device; and

storing the block of ciphertext and the appended one or more content variables within the storage device.

6. (Currently amended) The method of encrypting the block of plaintext of claim 5, wherein the host device further comprises a secure clock, the method further comprising:
obtaining a first time variable from the secure clock within the host device;
combining the host identification, the at least one content variable and the first time variable to produce a first plurality of different combinations, wherein the method used to combine the host identification, the at least one content variable and the first time variable repeatedly produces the same first plurality of different combinations; and
coalescing the first plurality of different combinations to produce the first an encryption key, wherein the method of coalescing the first plurality of combinations repeatedly produces the same first encryption key.

7. (Currently amended) The method of encrypting the block of plaintext of claim 6, for further use decrypting the block of ciphertext, the method comprising:
retrieving the stored block of ciphertext and the appended at least one content variable from the storage device;
retrieving the host identification from the host device;
obtaining a second time variable from the secure clock within the host device;
combining the host identification, the at least one content variable and the second time variable to produce a second plurality of different combinations; and
coalescing the second plurality of different combinations to produce a second encryption key, wherein if the first time variable and the second time variable do not match, the second encryption key will not decrypt the block of ciphertext and if the first time variable matches the second time variable the second encryption key will decipher the block of ciphertext.

8. (Currently amended) The method of encrypting the block of plaintext of claim 5 for further use decrypting the stored block of ciphertext, the method comprising:
retrieving the stored block of ciphertext and the appended at least one content variable from the storage device;

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retrieving the host identification from the host device;
combining the host identification and the at least one content variables to produce ~~two~~
~~or more combinations;~~
~~consolidating the two or more combinations to produce the encryption key that was used~~
~~to encrypt the file;~~ and
decrypting the block of ciphertext with the encryption key to produce the block of
plaintext.

9. (New) The encryption key generation method of claim 3 further comprising:
retrieving the stored block of ciphertext and the appended at least one content variable
from the storage device;
retrieving the host identification from the host device;
obtaining a second time variable from the secure clock within the host device;
combining the host identification, the at least one content variable, and the second time
variable to produce a second encryption key, wherein if the first time variable and the second time
variable do not match, the second encryption key will not decrypt the block of ciphertext; and if the
first time variable matches the second time variable, the second encryption key will decipher the
block of ciphertext.

10. (New) The encryption key generation method of claim 1 further comprising:
retrieving the stored block of ciphertext and the appended at least one content variable
from the storage device;
retrieving the host identification from the host device;
combining the host identification and the at least one content variable to produce the
encryption key that was used to encrypt the file; and
decrypting the block of ciphertext with the encryption key to produce the block of
plaintext data.

11. (New) The encryption key generation method of claim 5 wherein said step of
combining comprises:
using a predetermined method, wherein combining the host identification and the at
least one content variable produces the same encryption key each time the encryption key
generation process is executed.